

Virginia Wildlife

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Virginia Wildlife

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Virginia's Wildlife and Related Natural Resources
and to the Betterment of
Outdoor Recreation in Virginia**

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Observations, conclusions and opinions expressed in *Virginia Wildlife* are those of the authors and do not necessarily reflect those of the members or staff of the Commission of Game and Inland Fisheries.

COVER: Wood ducks, by Kent Pendleton, Boulder, Colorado.

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Acts of Assembly, 1973

AS this is written, the 1973 session of the General Assembly is nearing its end, and by the time these words are printed the Assembly's legislative endeavors for this year will be finished. While some bills of importance to sportsmen still await final action, and possibly further amendment, some comments on the session may be in order.

Tougher laws against killing deer at night by spotlighting seem certain to emerge, with the Commission's blessing. A massive, controversial, and much amended bill that would place in one Department a number of State environmental agencies (including the Game Commission) is moving forward. It will be discussed in detail in a forthcoming issue of *Virginia Wildlife* if it passes. Amendments to the State's boating safety laws, to make them conform to the Federal Boat Safety Act of 1971, should pass without opposition.

Giles County will be removed from the list of counties still having a squirrel hunting season set by law, thus adding that county to those whose squirrel hunting is subject to Commission regulations. (The time may be approaching when, if there remains a crazy-quilt pattern of squirrel seasons across the state, the blame will no longer rest with the General Assembly.)

As usual, what was not done may be as significant as what was done. The General Assembly did not amend the existing enabling Act to permit the Governor to accept a higher price for a portion of the Gathright property in the event the Corps of Engineers should find it legal and proper to offer more than \$620,000 based on a new appraisal of the land. The 1971 Act authorizes the sale at the fixed price of \$620,000, no more and no less. A bill to set the price at *not less than* \$620,000 failed to get approval of the Senate Finance Committee.

The House Committee on Conservation and Natural Resources killed a number of bills that would have amended our hunting and fishing license laws, primarily by increasing the number of residents exempt from regular annual license requirements. This action was taken after the Committee was advised that the Commission is working up a whole new license fee structure, designed to produce additional revenue that will be needed if the Commission is to continue its current levels of services and capital outlay in the face of rising costs, and that the proposed new fee structure would be ready for the General Assembly's consideration in 1974. The Committee wisely decided to address itself next year to the whole problem of revenue needs to support the Commission's future programs, rather than tamper with portions of the license fee structure this year without benefit of carefully studied recommendations based on revenue needs and an equitable distribution of costs among beneficiaries of the Commission's programs. It is all very well to give exemptions to certain groups, but let it be remembered that in the end the cost of carrying free-loaders always must be borne by the remaining dues-paying participants.—J. F. Mc.

Hognose, Not Rattler

THE article "Appalachian Trail Walk," appearing in the January issue, was a nice contribution to *Virginia Wildlife*. I praise Mr. Peter H. Dunning in his efforts to make such a hike and also in his write-up.

The snake in his photograph of "Rattlesnake on Pearis Mountain" may be better identified as the Eastern Hognose Snake (*Heterodon platyrhinos*). The markings on the body and head identify it, and also the closely spiraled end of tail is characteristic of the Hognose and not of the Rattlesnakes.

With all apologies to Mr. Dunning for this correction.

Costello M. Craig
Regional Representative, Western Va.
Virginia Herpetological Society



THANKS for another enjoyable issue of *Virginia Wildlife* (January 1973)!

I hope, however that the 'rattlesnake' on Pearis Mountain (p. 16) was spared the fate of most suspected 'poisonous' snakes. The markings on the top of the head and the pattern of the back, plus the coiled 'pig's tail' indicate that it is an eastern hog-nosed snake.

These hog-nosed snakes come in an amazing variety of colors. Some, as the startling contrasts shown in the black and white photo indicate, are close color-mimics of the timber rattlesnake. The hog-nosed snake has rarely been known to bite. It has teeth, but no fangs. It is one of our star possum players when you call its bluff. This is safe to do with a stick of 3 to 4 feet. A gentle tap on the head will produce total collapse in what was just recently a very bellicose specimen.

A record of the occurrence of the hog-nosed snake (*Heterodon platyrhinos*) will be posted on the detailed Virginia Herpetological Survey maps.

Franklin J. Tobey, Jr., Sec.
Va. Herpetological Society
Rockville, Maryland

Spring Gobbler Surprise

By RICHARD PAULEY
Salem

THE kitchen phone continued to ring, so I reluctantly climbed out of bed and clumsily made my way through the house, turning over a chair and stumping my toe in the process. I answered in a sleepy voice, and was not surprised to hear Ronnie Durham, a friend and hunting companion of many seasons, at the other end of the line.

"Well, how is the weather over there?" he asked.

"Just fine," I lied.

"It is really coming down here in Fincastle," Durham exclaimed, "and it doesn't show too much promise of quitting."

"Hold on a minute," I said.

Somewhat more awake now, I made my way to the door and stepped outside on the porch. I was greeted by a cold April rain that made me wish I was back in bed. The rain was steady but not really hard, and showed some signs of letting up.

"Ronnie, it is raining here too, but I think it will break by daylight," I said optimistically, "so why don't you come over and we'll give those gobblers a try."

"Well, I don't know," Ronnie said. "It is raining pretty hard, and I could get in some overtime today."

"Come on, Ronnie," I pleaded, "would you rather get a shot at a big gobbler or make a few dollars? After all, you can make money any day of the week."

There was a pause at the other end of the line, and I knew I had won the argument.

"Well, if you really think it will clear up, I guess it won't hurt to give it a try," Ronnie speculated. "I'll see you in a few minutes."

Now fully awake, I realized that it was only 3:15 a.m. and most of the rest of the sane world was still asleep. Undaunted by this fact I started making last-minute preparations and checks of equipment for the coming hunt. At last April 22, the opening morning of the 1972 spring gobbler season, had arrived, and after months of waiting it seemed the elements had turned against us. I was not really upset about the rain, because in past seasons I had bagged turkeys in wet weather, but usually gobblers lose interest in love when the weather is damp. A wild gobbler is tough to find under the best possible conditions, but when they clam up and refuse to gobble, hunting them in the spring is practically impossible. However, opening morning had finally arrived, and I was determined to hunt regardless of the weather.



Photo by Leonard Lee Rue III

By 4:00 a.m. the rain had become a slow drizzle, and I became even more optimistic. In the middle of my second cup of coffee, I heard Ronnie's truck pull up in front of the house, and soon we were reassuring each other that we had made the right decision.

"I guess we might as well get going," I said, "since we still have to pick up Bill."

"Right," Ronnie added as he quickly gulped down the last of his coffee. "I sure don't want to keep those gobblers waiting."

We made the short drive to the home of Bill Gibbs, who, like us, was a fanatic wild turkey hunter. As we pulled into the Gibbs driveway, Bill stepped outside, obviously ready to go.

"I thought for awhile you weren't coming," Bill exclaimed. "It's already 4:30!"

"Don't remind me," I said.

"Are we going to sit here and talk all day or are we going to go chase some turkeys?" Ronnie kidded.

With that we loaded up and headed for Montgomery County, where we planned to hunt that morning. We had chosen the rugged Poor Mountain area of the county because of its lack of hunting pressure, and because we had seen several mature gobblers there during our pre-season scouting trips. On one such trip I had called up three huge gobblers in a single morning, and all had been within easy shotgun range. We knew the turkeys were there, and our job was to find them.

As we reached the top of the mountain, we were greeted by another steady rain. The difference in elevation was apparently enough to cause the precipitation, and although nobody spoke, there was an apparent droop in everyone's spirits. I drove on, and after about ten minutes we came to the area we had decided to concentrate on. We decided to split up, so after letting Ronnie out, I drove Bill around the mountain a short distance to the foot of a promising-looking ridge. We wished each other luck, and parted company. We had agreed that if anyone shot a gobbler, that he would bring it out to the road and wait to be picked up since the area was far too steep and rough to carry anything for any distance. I drove to the area that I planned to hunt, and after a last sip of coffee I stepped outside. The air was wet and cold, and rain was still falling, and I fully realized the odds were terribly against our even hearing a gobbler under such conditions. I didn't give myself time to think about the discomfort of the situation; after loading my old Fox double barrel and making certain my box caller was protected against the weather, I quickly made my way out the ridge.

I walked about a quarter of a mile, to a point where the ridge took a sharp bend and formed a large bowl-shaped hollow. It was here that I had seen several of the pre-season gobblers. Actually the area was a haven for turkeys, as it was far enough from the road to avoid disturbance, as well as being loaded in food, cover and plentiful roosting sights. One side of the broad hollow was open with little undergrowth, the predominant trees being oak, hickory and other hardwoods with a few giant henlocks scattered here and there. In contrast, the other side was a mass of laurel thickets and rhododendron tangles, with only a trace of hardwoods and pines. As I made my way toward the open area, I thought how difficult it would be to lure an old gobbler out of such a thicket. However, the turkeys I had seen previously were using the open area exclusively, and the leaves on that side of the hollow were upturned and scattered, showing that the huge birds were feeding in the area. Also, an old gobbler likes a somewhat open spot to strut and show off for his hens, and still be able to detect any approaching danger.

Light was beginning to show in the east, as I made myself as comfortable as possible at the base of a large hemlock. The rain had stopped but lots of water was dripping off the leaves making hearing difficult. I was wet all over, and after sitting for a few minutes a cold chill came over me that was hard to ignore. I decided to give a few calls in case a gobbler was close by. Carefully I unwrapped the box caller that I always use, and confidently gave a series of seductive notes that went unanswered. After about ten minutes I tried again but with the same results. A discouraging feeling came over me, and being wet and cold only made things worse. In the back of my mind I wondered if I shouldn't have stayed in bed. I decided that I might feel better if I moved, so I got up, stretched and started easing down the hollow. I had gone perhaps fifty yards when the impossible happened, a turkey gobbled somewhere below me. I quickly seated myself and took out the box call and waited until my breathing was less rapid. After a short wait I fashioned some soft clucks and whines that sounded too good for any old lovesick gobbler to ignore, yet no answer was forthcoming. Could I have been mistaken about the gobbler I had heard earlier, or was the old bird just trying to wait me out? I paused and then gave a series of hen clucks with a more plaintive tone, and immediately there was a challenging gobbler from somewhere not too far below me. Again, the old monarch gobbled, and then once again, and I thought to myself that I must have really stirred him up with the last series of clucks. I called again and got no answer, so I held up my end of the war of nerves and patience by simply waiting. I tried my best to cluck and putt like a lovesick hen, but after several more attempts I had not been answered. I couldn't help but wonder if the old gobbler hadn't gone the other way, so after awhile I got up and started slipping silently in the direction of the last gobbler.

I had gone well down the hollow when a flurry of wings caught my attention. Then I realized that the old gobbler had flown off the roost, but I had no way of knowing whether I had spooked him, or whether he had acted on his own. Again I set up shop and called to the bronze monarch and received an answer immediately, but my hopes sank. The old bird had flown away from the open side of the hollow and was now in the laurels on the other side. I knew that I had my work really cut out for me now, because the gobbler was above me and moving in dense cover. He gobbled again, and it became apparent that he was moving in a definite direction. Then the thought struck me that perhaps the gobbler was zeroing in on the spot I had first called from. It was a possibility, and I decided that if I could reach that spot before he did, a shot might present itself. I hurried up the steep ridge as quickly and silently as possible, falling several times on the wet leaves, but advancing as best I could.

(Continued on page 6)

Panting and sweating, I finally regained the original stand and set down to once again wait for developments. They weren't long in coming, as the turkey gobbled about seventy-five yards below me, still in the laurel thicket. I clucked in a more subdued tone this time and three lusty gobblers broke the morning stillness. I called again, but even more quietly now and the old bird sounded off much closer. I speculated that the turkey was already within range but it was far too thick to see him until he came in closer. I clucked ever so softly, to keep the old boy coming and then laid the caller aside. Anxiously I cradled my gun, and strained my eyes for some sign of the huge bird that I knew was there. I realized that the next few minutes would tell the tale as to whether the gobbler would fall to my gun or escape to court another day. Another gobbler rang out across the mountain and it sounded almost in my lap. I slowly raised the old double barrel, with my thumb on the safety, waiting for the gobbler to appear. Then suddenly there he was, right out in the open with his neck stretched out, searching for the "hen" that he had been serenading. I was so startled to see the gobbler in the open and at such close range, I missed my chance to fire, and he quickly moved back into the thicket. I could see him moving around in the brush about twenty yards away as he strutted and fanned his broad tail, trying to make the "hen" show herself. I could not see well enough to get a good shot, so I waited and hoped for the best. Suddenly the gobbler's neck shot straight up and he looked right at me. Thinking that he must have seen me and realizing that he wasn't going to hang around, I knew I had to act fast. Before I could fire, the gobbler exploded from the thicket and sailed across in front of me. I led him as best I could and fired. The huge bird faltered and began loosing altitude but he was far from finished. I swung on the escaping tom and gave him a second blast of magnum 6's, and at the report of the gun the air was filled with bronze feathers. The gobbler came crashing down about fifty yards away, hitting on the steep slope, and tumbled out of sight down the hollow. I ran and fell down the ridge and managed to make it to the turkey in one piece.

The big gobbler was dead when I reached him, but I still approached cautiously since the spurs of a wounded gobbler can cut like a knife. Having made certain the great bird was indeed dead, I leaned my gun against a tree and began examining the old monarch. I first noted the long beard sported by the old tom, and guessed its length at about eleven inches, although it was unusually thick and well groomed. The bird had long tapered spurs, and a beautiful full-rounded fan, but I was about to discover the gobbler's most notable characteristic. I grasped the turkey by one leg to pick it up, trying to guess its weight. I couldn't believe it but it was all I could do to hold the turkey off the ground!

Thinking I had a bad hold, I grasped the other leg but still the bird felt like a bag of rocks. I had killed some good-sized gobblers before, and two over twenty pounds, but this one felt far heavier. This gobbler felt so heavy that I wondered how I was going to get it back up the bluff to the car. After surveying the situation I decided to take my gun back to the car and then come back and get the bird. Upon returning to the turkey, I attached my #3 TURKEY TAG to the old tom's neck and started back up the ridge. As I pulled myself from tree to tree, I reflected on the great luck that I had enjoyed in bagging three wild gobblers in a single season. My two fall gobblers had been nice birds, but the monster that I was lugging at that moment was surely my greatest upland game trophy. All these thoughts were nice, but they were little help in getting myself and the huge gobbler up the steep slope, so I decided to take a breather. Several falls and a couple of rest stops later, I arrived back at the car with my prize. I was exhausted, but my excitement was growing, so I quickly took a few pictures and started around the mountain looking for Ronnie and Bill. After a short drive I met Bill coming up the road, and we excitedly examined the big gobbler. Bill and I were soon joined by Ronnie, and neither of them could believe how heavy the gobbler actually was. Both Ronnie and Bill are



Giant gobbler sported perfect fan, tremendous wingspan, and a long, thick beard.

veteran turkey hunters, having bagged many turkeys between them, and both said the gobbler was by far the largest they had ever seen. After another round of congratulations, we started off the mountain to the checking station, where we were to receive the ultimate shock.

Arriving at the checking station, we were given some strange looks since we were all wearing camouflage



Poor Mountain in Montgomery County has ideal turkey range: high, steep ridges and deep, rough hollows.

cream on our faces and in addition we were all completely soaked. Undaunted by this, I carried the old tom inside where we were greeted by the Apqor brothers who run the station, and who had checked in big game for us in the past. They put the huge bird on a set of certified scales, and we all nearly dropped our teeth when the needle came to rest. It registered an unbelievable 30 pounds 8 ounces, and for a moment nobody said anything.

"That can't be right, can it?" I said.

"Let's weigh it on another set of scales," said one of the brothers.

We all moved to the back of the store where once again the turkey weighed in at thirty and a half pounds, and then the realization came over all of us.

"Good gosh," said Ronnie, "that has to be some kind of record."

Realizing that he could be right, I got the people present to witness the weight, and upon arriving home, I notified my friend Bill Cochran, the outdoor editor of "The Roanoke Times."

Bill informed me that he hadn't heard of any other gobblers being checked in, probably because of the weather. He congratulated me on my kill and the next morning ran an article on the hunt.

While dressing the bird, we noted that it was fat but not exceedingly so. The crop was full of acorns, buds, and a number of insects and grasses. The old boy had been eating very well, and we decided he should become the main course for Thanksgiving dinner.

I naturally wondered if the huge bird was indeed any type of record, so I wrote the Commission of Game and Inland Fisheries and received a prompt reply. It seems that no state records are kept of wild turkeys in Vir-

ginia, but I was urged to enter my trophy in the annual fall big game contest, held at Harrisonburg. I planned to do so, but later found that I could not since to judge a wild turkey, the beard, big game tag, and one wing are needed, and I had failed to save either wing when dressing the gobbler. I was naturally somewhat disappointed, but I still have the memories of that exciting morning which are trophy enough for any turkey hunter.

I expect there will always be some controversy and doubt concerning my gobbler since it was written about in "The Roanoke Times," "The Times Register," and "The Richmond Times Dispatch," thus enabling a large number of people to hear about it. As a wild turkey hunter of many years, I am not angered by disbelievers, and hasten to add that if I hadn't seen the turkey itself and the weighing, I would doubt it too. However, let me point out that the bird was obviously a wild turkey, with all the distinguishing characteristics, such as the small bluish head, chestnut tipped tail feathers and the overall slender outline. Also, there are no houses or farms within about ten miles of the hunting area, thus pretty well ruling out a "barnyard escapee." I do not deny that some interbreeding may have taken place somewhere in the huge bird's family tree, as this is a fairly common occurrence in regions containing wild turkeys. However, I submit that this gobbler was obviously wild and doing well when I bagged him. I don't really think I will ever see, much



Author's wife, Sandra, prepares to enjoy holiday meal with the "surprise" gobbler gracing center of the table.

less kill, a larger wild gobbler, but that is quite unimportant. As any turkey hunter would surely agree, the thrill is in the hunt, and anything else is simply an added bonus. I am sure next spring will find me once again doing what I love best, hunting wild turkeys in the mountains of western Virginia.

Gift from the Sea

By PETE ELKINS
Lexington

THE river looks no different than it did two weeks before. It's still cold in the morning mist, but jasmine blooms yellow in places and green buds revitalize the bare limbs of winter-weary trees. There's really no way to know yet, as you slide the johnboat into the tidal river. For the first time since last year, the johnboat responds to the subtle song of the river. Velvet water slides past the stern toward the ocean miles and miles away. You push the boat away from the shore, feeling the sandy bottom crunch under the pushing paddle. Then the boat swings free in the current. You enjoy the freedom, reluctant to disturb the mist and morning with the unpleasantness of the outboard.

The river wins. You decide against the motor, guiding the drift with a gentle paddle instead. There, where the river turns to the right, you decide to anchor. The anchor goes down quietly with no splash to disturb the water or the morning. You wait for the sodden jar when the anchor snubs the boat in the strong current. Then the boat holds in the heavy water like a nervous horse wary of the starting gate. The anchor line vibrates in tune to the tide.

Enough. Time to see if they're here yet. The rod is light and alive in your hand. An old feeling, a good feeling, comes from the sound of the water pushing against the brushy bank. After running the monofilament through the rod guides, you pull the line to test the reel's drag. The rod is alive and good in your hands. They've got to be here. It's almost April; they should have arrived!

Opening a compact plastic box, you search through a bright collection of tiny spoons, some silver, some gold, some feathered, some bare. Mixed with the golds and silvers are diminutive jigs, or "darts." You pick one up, the nose angular and clean with a dash of red ahead of white, leading back to a gold hook. Wispy, yellow hackle embellishes the hook. You select one of each, a silver spoon and a red and yellow dart. Next you take out a small package of ball-bearing swivels, each a precision, stainless steel machine capable of thwarting the twisting force of the river.

Making up the rig is a neat, simple pleasure with the river noise continuing good and the mist lifting in the growing light. You tie the dart as a "dropper" below the swivel. The spoon completes the combina-

tion. The dart will provide casting weight while the spoon flashes at the end of the line. If they're really here, two at a time will be common. You decide against adding any additional weight yet. If no strike comes, then more weight may be required. As for now, the dart-spoon combo is in harmony with the sensitive rod.

The ritual is over. No more stalling. If they're here,



The hickory shad is a perfect ultra-light tackle fish. Tiny shad darts and spoons provide wrist-jarring strikes. The string below provided enough delicious roe for the entire season.



it's time to find out. The first cast loops out in that funny way that a dart and spoon sail together through the air, each trying to beat the other to the water, and the dart almost always winning.

The white splash is quickly swallowed up by the moving tide. You decide to try the top layer first, so you flip the bail shut as soon as the lures touch the surface. The bail clicks shut perfectly, like the bolt of a Browning automatic shotgun.

You begin the retrieve, slowly, letting the current do its work on the spoon. The rod is held low to the water ready for a strike. Three feet below the smooth surface, the spoon glints, winking silver life in the gray-green water. You can't see it unless you fish a lot; then you can always see your lure no matter how deep you might be working it. The rod tip pulses to the rapid beat of the spoon.

The lure nears the middle of the river. You're anchored on the shallow inside bend, casting to the deeper outside bank, where the current gouges out resting spots for the wayfarers you seek. You sense it almost before you feel it: an instant's pause as if the lure brushed a suspended leaf, then wham! Shad, shad, they're here, they're here!

It couldn't be anything else, not with the line melt-



Shad strike so willingly that the angler must avoid the temptation of gluttony, keep only what he can use.

ing from the slipping spool like that, not with the rod alarmed and bowed, and not with a suddenly silver creature hanging upside down above the river. The shad crashes back, then skitters skywards again, then again, and yet again. By this time, you've already loosened the drag even further in anticipation of a last minute brawl beside the boat. You extend the net, billowed out by the rushing current. The shad skids sideways in the current toward the net, but regains its balance and again tests the new drag setting. But you compensated enough for the fragile mouth and the hook stays in. Your next try with the net connects. Don't feel bashful; put down your rod and marvel at the shad, a gift from the sea.

MARCH, 1973

The flanks are impossibly bright. Mother-of-pearl graces its dorsal surface. The eyes are big and filled with the mystery of places deeper and farther than man can tell. This one is a female, her abdomen swollen with succulent roe. After a moment, you place her on your stringer in the cool water. You know they're finally here and that the one on the stringer will soon have company.

Shad fishing has a magic all its own. The magic comes from many sources, such as the names of the rivers sought by the shad: Mattaponi, Rappahannock, Pamunkey. These names bespeak ancient things, wildness, and freedom. The magic comes from the fish itself, a fish that appears with the tide, then disappears to places unknown. If the scientists are baffled, little wonder that a fisherman can feel awe when he holds a shad in his hands. The magic also comes at the end of a fishing rod, where the shad goes virtually berserk. Shad are swift, powerful sprinters, eager strikers, and unmatched jumpers. A one-pound shad fresh from the sea will make a three-pound rainbow trout look anemic in comparison.

Shad spawning runs are triggered by water temperatures. When the water nears the 45° F. mark, the shad turn their noses upriver. Studies show that the initial upriver movement may consist of only two or three miles per day. Warming waters spur the rate of movement. As the water nears 55° F, shad may forge upstream 12 or 14 miles within 24 hours. The silver advance is led by the male or "buck" shad, usually smaller than the later-arriving "roes."

Curiously, shad spawning in most waters south of Virginia ends in death. Like Pacific coast salmon, the shad reproduce, then die. Virginia shad, however, may spawn several successive years. An adult "roe" shad will produce 300,000 to 500,000 eggs, which, after fertilization, drift freely near the river bottom. The fertilized eggs incubate for 3 to 10 days (dependent upon the water temperature), then the immature shad emerge. The young shad spend the summer in fresh water, feeding on insects and tiny aquatic animals.

When the evenings turn cool and leaves fall, the juvenile shad feel the call of the sea. When they head downstream, they virtually disappear for four to five years. Then they return to the river where anxious fishermen wait.

Both the hickory and white shad are perfect light-tackle fish. The smaller hickory, *Alosa mediocris*, is one of the most aerially inclined fish that enters fresh water. The American or white, *Alosa sapidissima*, is stronger than the hickory, but jumps a bit less. Ultra-light spinning tackle with 2-4 pound test is ideal. Fly rods and bright wet flies are also appropriate to both species.

The real secret of shad success lies in proper timing. Usually late March to early May will find shad in Virginia waters. April is the peak, the time where the rivers are filled with a gift from the sea.

The Snail That Builds a Raft

By M. D. BELLOMY
Hialeah, Florida

THE sea is the home of many animals remarkable for their ability to make things. One of these, the beautiful violet sea snail, lives upside down in a paper-thin shell, wandering about on the surface by means of a self-manufactured bubble-raft that is an engineering marvel.

The violet sea snail, known scientifically as *Janthina*, is one of the loveliest members of the world's largest class of animals without backbones, the gastropods or univalves as these animals are also called. The univalves wear a coiled or cap-shaped shell; most have a radula, a flexible tongue-like structure studded with teeth used for grinding food, well developed tentacles, and a pair of eyes.

Although violet snails are comparable in other re-

Depending upon the species, the shells are tinted faintly or intensely and are trochoid or globose in shape, resembling the common moon shell in general outline. The most frequently found of the violet snails, *Janthina janthina*, is two-toned: dark purple on the lower half, the part that normally is upward when the snail is floating and faint lavender-white on top, the part suspended downward when the animal floats. The other species wear shells of one color usually, but all are beautiful to behold.

The raft that makes it possible for *Janthina* to drift about on the surface is made of air bubbles encased in sticky mucus that hardens on contact with air or salt water. This material is secreted by special glands in the animal's unique foot. The raft-making process consists



The violet sea snail, *Janthina janthina*, wears a beautiful shell of royal purple on the bottom and faint pinkish-white on top. The snail's body, with the exception of its head, also is dark purple, indeed a royally-colored animal both within and without.

Photos by the author

spects to their many kinsmen, Nature withheld the gift of sight from them. In fact, they have no eyes. Yet, in a manner of speaking, these snails can "see." Their tentacles are light sensitive. Thus, by means of a still unknown mechanism, blind *Janthina* is able to "see" a finger or an object pointed in its direction. When this occurs, the snail quickly withdraws its head into the safety of its shell.

Janthina's shell is not always a place of safety, however. It is so thin it crushes easily between the thumb and finger, and sea birds, with their strong beaks, have no difficulty in scooping the snails from the sea surface, crushing the shells and devouring the soft, violet-colored body within.

The color of *Janthina's* shell ranges from pinkish-white to orchid to rosy-violet to deep, royal purple.

of the snail extending its retractable foot along the surface, trapping a bubble of air in a small cavity formed by cupping the extreme end of the foot, simultaneously coating the bubble with mucus, and pressing the processed bubble to the end of the float. As *Janthina's* body grows, both the shell and raft enlarge proportionately.

During the breeding season, four of the five known species of violet snails use the float as a nursery, attaching their egg capsules to its submerged surface. After a period of incubation, the egg sacs rupture and the young tumble into the sea as free-floating veligers. In this stage, the young are well developed—almost exact copies of the parent snail—except that they have no true floats. Instead, they carry about a long mucous stalk with a minute ball at the end. The ball contains

VIRGINIA WILDLIFE

air bubbles almost too small to imagine, but they provide enough buoyancy to keep their diminutive charges afloat.

The largest member of the violet snail family, *Janthina janthina*, is ovoviviparous—that is, eggs are formed in tubules within the mother snail's body and the young, complete with miniscule coiled shells, are

main stream. Adverse onshore winds then carry the snails into shallow waters and receding tides leave them stranded on beaches, mud-flats and in rock pools. Worldwide distribution still remains to be determined. In addition to American shores, members of this family have been found along the rocky coasts of the British Isles, on Australian and New Zealand beaches, and on

Janthina's head, shown protruding from the shell, is a lighter shade of lavender than any other part of the body. Light-sensitive tentacles are shown extended from each side of the head. The unique foot (dark cupped area shown between raft and head) is in the process of making another bubble compartment to add to the float.



ejected through the mantle cavity into the sea. All *Janthina* young quickly join other planktonic voyagers at the surface.

Many of the janthanids live off the southern coasts of the United States. Each year, during the late winter and early spring months, they are cast ashore commonly in Florida and other Gulf states; less frequently, they are washed up onto southern California beaches. Along the east coast, individuals and sometimes large shoals of these open-sea drifters are carried northward by the Gulf Stream, then cast off in various directions by small currents and eddies that swirl away from the

numerous Pacific islands.

It is an unfortunate circumstance indeed, at least for the individuals involved, that causes violet snails to be driven onto land. There simply is no way for a strandeer to survive unless it is helped back to the water. Even then, the next tide probably will carry the unfortunate creature to an untimely end not too distant from the original beaching. However, if *Janthinas* were not brought involuntarily to land, few humans would be afforded the delight of collecting these lovely shells and, once in awhile, finding a living animal with its bubble-raft still intact.

Left: Apex of shell carried pointing toward bottom of ocean. Right: Bottom of the shell carried pointing toward the surface. *Janthina* often carries passengers on its shell. Note the small barnacle on apex of shell at left.



Know your BIOLOGISTS

Text and Photos by F. N. SATTERLEE
Information Officer

JOHN B. REDD, JR. *Game Biologist, District 2*

Pittsylvania County was where John Redd was born and his father before him, and his father before him. When John was about 2½ years of age, illness in the family resulted in his going to live with his grandparents, who by then were living in Fluvanna County.

The next six years were fruitful for John. His grandfather had a great love for the outdoors and nature, and taught John to fish and hunt and respect wild things and the environment.

In 1936 John's family moved to Arlington, Virginia, where he graduated from Washington and Lee High School in June of 1945. That same month he enlisted in the U.S. Army. Most of the 22 months that John spent in the Army were with the 42nd Squadron of the 2nd Cavalry Group, in Germany.

After being discharged, he entered V.P.I. and received a B.S. in Forestry and Wildlife in 1951. In June of 1956 he received a M.S. in biology with a major in wildlife from V.P.I. Later that month he joined the Virginia Game Commission as a game biologist.

John is currently responsible for activities in 12 counties, and is headquartered at the Commission's field office in Powhatan County. He and his wife, the former Cheri Wells of Arlington, Virginia, and their three boys live at Powhatan Court House.



NORVILLE S. PROSSER *Fisheries Field Research Supervisor*

Norville graduated from Centennial High in Pueblo, Colorado, spent two years in a junior college, and then transferred to the State University in Fort Collins where he received his B.S. in fisheries science. In 1967 he received his M.S. from the same institution, in the same field.

He had an early exposure to wildlife work, for while attending college he worked for the Colorado State Fish and Game Commission during three summers. He also worked for a time on trout stream improvement for the Metropolitan Recreation District of Vail, Colorado.

Norville joined the Game Commission in June of 1967 and was assigned to the Fredericksburg area as district fish biologist. He considers himself fortunate in being in this line of work and able to protect some small portion of our precious wildlife, habitat and environment. He is currently fisheries field research supervisor, responsible for the activities of two fish biologists operating in northern and eastern Virginia.

The former Pauline Vannest of Pueblo, Colorado, is Norville's wife. They have three children and make their home in Spotsylvania County near Fredericksburg.



CONSERVATIONGRAM

Commission Activities and Late Wildlife News ... At A Glance

DEER KILL SETS NEW RECORD FOR VIRGINIA. A total of 48,764 deer bagged in Virginia, according to Game Commission's initial tallies, sets a new record for the state, exceeding last year's total by some 6,000. Southampton County led the state with 2,711 animals reported, while Rockingham led the western counties and ranked second in the state with 1,902. Many piedmont counties jumped over the 1,000 mark for the first time, most notably Fluvanna County where 1,531 were tagged, Amelia with 1,223, Cumberland with 1,221, Powhatan with 1,044 and Chesterfield with 1,003. Buckingham continued to rank as a top deer county with 1,784 as did Bath County in the west with 1,685. The total deer kill was some 3,000 above biologists' estimates for the season. Growing herds, coupled with a year of scarce mast which forced deer to forage in open fields where they were more vulnerable, were credited with the dramatic increase in kill. The doe take stayed below the critical 35% mark in nearly all Virginia counties and was below 25% in most.

CARP NOT SOLUTION TO WEED PROBLEMS. The recently glamorized "grass carp" and its predecessor in the spotlight, the "Israeli carp," are not living up to their reputations as weed eradicators. Recent articles in national magazines have hailed the white amur or grass carp as an instant answer to weed-choked ponds, but recent studies indicate that this big member of the minnow family does little to control weeds and may actually compete with game fishes in the pond for plankton and other aquatic organisms. Recent research in Missouri reported by the Sport Fishing Institute indicates that weed consumption is greatest in hot weather and when other food sources are not abundant. Fishes in test tanks ate freshwater shrimps in preference to aquatic weeds at low temperatures and ate weeds as a side dish as temperatures increased. Coontail, one of the most common problem weeds, was spurned by the grass carp, but other species of aquatic weeds were eaten. Algae, one of the leading problem aquatic growths, formed only 9% of the diet in one study.

"We feel that the weed control prospects of the grass carp are highly overrated, and if legislation is enacted giving the Commission authority to prevent the importation of undersirable fishes, we would place the grass carp on this list," said Game Commission Fish Division Chief Jack Hoffman. "As for the Israeli carp, we get about as many calls about how to remove them from lakes as inquiries about stocking them," he added. At least two states have banned grass carp, and others require permits. The Israeli carp is merely a strain of the common carp, which is well established in all Virginia waters and poses no greater threat if it escapes. The grass carp is a different species of minnow, and the consequences of liberating it in state waters cannot be assessed at this time.

TURKEY HARVEST EXCEEDS EXPECTATIONS. In spite of complaints that turkey hunting wasn't as good as it was in the 1971 season, Virginia hunters managed to bag a total of 4,001 this season, which was up from the 3,663 bagged last year. Leading counties were Bath with 418, Rockbridge with 363, Augusta with 311, Botetourt with 301, and Frederick with 272. Shenandoah and Highland counties also ranked high, with 261 and 258 respectively, while Rockingham recorded 226. Nearly all counties open for fall hunting enjoyed increases over last year's harvest.

POOR BEAR KILL BLAMED ON MAST FAILURE. An almost complete lack of mast in Virginia's bear range was cited by most Game Commission biologists in explaining the extremely low total of 143 bears bagged in the state last fall. The Virginia bear harvest usually fluctuates up and down in precise step with the mast crop for reasons not yet completely understood. Abundant mast may result in the bears being widely scattered and actively feeding during the entire bear season, while little or no mast forces the bears to hole up and restrict their movements and thus their availability to hunters. Rockingham County had the highest total with 20 bears.

ONE of my favorite angling partners, John Powell, fishes much the same way he fed chickens during his barefooted-boy days on a red dirt farm in Alabama. He throws out his offering with enthusiasm and rapidity, expecting it to be gobbled up a second or two after it hits.

John is a shallow-water, shore-line fishing expert from Montgomery, Alabama. He's what you might call one of the big name bass boys. He has won a couple Bass Anglers Sportsman Society (BASS) tournaments. He fishes for a living, promoting a line of plastic worms, monofilament, trolling motors and rods and reels.

John isn't like most of the other big bass boys, though. They seek out deep-water sanctuaries with sophisticated topographical maps and depth finders, often sticking to a single hole or structure, as they call them, with the determination of a setting hen. They say when you fish the shore line, you've turned your back on 90 percent of the bass.

At times, this may be true. The structure boys bring in hefty strings of goggle-eyed, gaping-mouthed bass to prove their point.

But John prefers the shore-line shallows. He's of the keep-it-simple school. He's the champion of the johnboat crowd, the hero of the bank pluggers. It makes him a delight to fish with and seldom does a season go by that we don't get together on Smith Mountain or Kerr reservoirs.

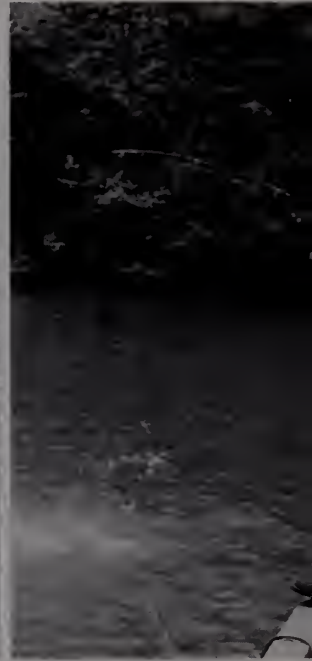
I recall our first outing on Smith Mountain Reservoir about four years ago. I was the host. He'd never seen this 20,000 acre, deep-water reservoir along the foothills of the Blue Ridge Mountains. When we launched off from the marina, naturally I suggested several productive spots we should try.

"See that island over there? The lee side of it always is good for a bass or two. And down yonder is a rocky point where fiery-eyed smallmouth hang out."

John, in control of the boat, said nothing. He merely eased the craft out of the docking area, flipped into action his bow-mounted, foot-controlled electric motor and began poking along parallel to the shore line, sending out cast after cast as the electric motor hummed him along.

Several hours and 12 bass later, I could see his point. Keeping your lure in the water and not roaring up and down the lake can be an important factor in catching bass, especially in the spring when the fish are along the banks. It brings to mind another thing, I believe. Some of the fellows who have mounted their fishing boats with huge motors to roar from one hopeful bo-

HAVING FUN



WITH SHALLO

nanza to another are overlooking many of the tranquil joys of angling.

I had to chuckle when reading a press release about John winning a BASS contest on Missouri's Table Rock Reservoir a couple years ago. He took first place in the three-day event without burning more than three gallons of marine gasoline. He simply stayed along the shore line within the shadow of the dock and outfished the competition. It reminded me of our first outing on Smith Mountain Reservoir.

That day I learned John has some definite ideas about how a lake should be fished. I must add that they've had considerable influence on my fishing techniques, although I will be quick to say that other methods will produce better at times, and a good fisherman must be flexible.

He must also be willing to stick with his sport. No one ever caught a bass by staying home and dreaming about it. As John says, "You've got to be out there bending that rod."

On our most recent trip to Smith Mountain, we reached the lake at 6:30 a.m. It was 8 a.m. before John got his first strike. By 9:30 a.m., he had landed a limit of eight bass.

By BILL COCHRAN
Roanoke



WATER BASS

No matter how good a fisherman you may be, such days are not guaranteed. John tells about casting so long and so hard during one tournament that his arm "swelled up like a stick of bologna." And one fall day on Smith Mountain didn't produce a single bass for him. Still, John came away full of enthusiasm for the next outing.

"Trouble with most fishermen, they just won't stick to it," he says. When crowds gather around John at docks or during bass seminars, he simply grins and says, "My secret is simple enough. Anybody can do it. Just get out there and continue to bend that rod."

Tag along with John on a trip to Smith Mountain or Kerr, and the first thing you notice is that he works his boat considerably closer to the bank than most fishermen. "I seldom cast more than 30 feet," he explains. "A long cast will leave slack in your line, which may cause you to miss when you strike a bass."

John's almost exclusive lure is the plastic worm, the soft, seductive bait that has gained a hard core of followers among bass fishermen in the past decade. In the spring, and it should be pointed out here that the methods being described produce best then, he chooses the six-inch size. "Let the other guys use the big

worms," he says. "Bass don't open their mouth and flare their gills as wide in the spring as they do in the summer when they will knock the fire out of a worm."

As for color, John carries along a large variety of worms. Probably his favorites are green, blue, purple and black. He's not one to argue with a bass. If they want a certain color, that's what they get. And he'll experiment until he discovers what color that is.

John uses, with modifications, the weedless method of rigging a worm that is quite popular these days. The line he chooses depends on how clear the water is and ranges from eight to 25 pounds. At Smith Mountain, he uses 10-pound test. At Kerr, he'll go to a somewhat heavier poundage.

Onto the line first goes a sliding sinker, probably 3/16 ounce being common. John often makes his own sliding sinker simply by using a pair of pliers to clip the eye and stem from a common bell sinker. He threads the pointed end on first so it will face away from the head of the worm.

Next, John ties on a 4/0 hook. The point of the hook is inserted into the tip of the nose of a plastic worm and brought out the side, about one-third inch behind the nose. The shank of the hook is threaded through the worm until the eye is buried in the nose. Then the point and barb are embedded into the body of the worm, making the rig weedless.

At this point, many anglers, myself included, anchor the worm to the hook by pushing a toothpick into the head of the worm and down through the eye of the hook, then clipping off both ends. But John prefers to push the point of a toothpick down into the hole of the sliding sinker to wedge the sinker to the line in order to keep it from slipping. This keeps the sinker firmly attached to the worm so that it doesn't fly on one side of a snag and the worm on the other when cast, he explains. And it lets the worm slide freely on the hook when a bass strikes, thus quickly exposing the hook. Considerably more worms are destroyed during a day's fishing with this method since each strike likely will tear the plastic. But that doesn't bother John. He sells worms.

John will cast his worm to within inches of the bank, flicking it at the stumps, the tree roots, the rocks and the other obstructions he sees—places a big old bass might be sitting, fanning his gills just waiting for something to come along. He allows the lure to sink, then moves it slightly and slowly by raising the tip of his

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rod. If the worm isn't socked by a bass within a yard of the shore line, John normally reels it in rapidly to make a new cast. He seldom bothers to fish the "dead water" located a few feet from the bank out to the boat, although he will work a point deeper than he does a normal shore line. He likes to punch out numerous, short, accurate casts, sometimes as many as a half dozen a minute, to give his worm plenty of exposure.



Author works shore line, using shallow-water casting techniques.

"A bass is going to strike a worm the first few seconds it hits the water," explains John. "That's the critical time. He sees it and hears it when it hits the water, the same as he does a popping bug. If he's going to strike, he's going to make up his mind within 10 seconds."

John keeps moving along the shore line, propelled by his electric motor, tossing out his worm, letting it wiggle seductively, then rapidly reeling it in and tossing it to a new spot until he gets a strike. When that strike comes, he wants to know it as soon as possible. All the while his worm is being presented to the shore line, he keeps an eye on his line where it enters the water. If he sees a slight twitch, bend or jump in the line, he strikes immediately without waiting to feel the bass.

"You can't win a feeling contest with a bass," says John. "He's feeling with his sensitive mouth; you are feeling with your hands. He's going to outfeel you nearly every time. When a bass sucks in a worm, he creates a vacuum which causes the worm to hop a

couple inches. This puts a little snap in your line, which you can see if you watch for it."

Once, instructing me how to set the hook while using his method, John said, "The first tap you feel is the bass inhaling the worm. The second tap is the bass spitting the worm out. The third tap you'll feel is me tapping you on the head saying, 'You done waited too long to set the hook.'"

To relate that John strikes hard is an understatement. He strikes as if he were trying to upset the boat or break the jaw of his victim. The idea is to put the big, steel hook through the tough mouth of the fish. The rapid strike also generally will get the fish near the lip so it can be released with little harm.

The savage strike starts the fish, even a big one, toward the boat and away from brush or snags along the shore line. Once started, John plays the fish rapidly, and without a net, slinging it aboard with the stiffness of his rod. "You can play with him once he's in the boat," he grins.



At the end of a Smith Mountain Lake outing, John Powell examines catch.

John has used both a bait casting rod with a level wind reel and a spinning outfit. His methods work well with either. Just getting out and trying it is the most important thing, he urges. "Too many bass fishermen deny themselves some of the greatest rewards of shallow-water fishing by doing too much reading and too little fishing. In other words, get out on the lake and bend that rod rather than accept for fact what some yee-hoo says is the normal habit of bass."

With that advice from John, let's go fishing!

CREEL SURVEY

By MITCHELL D. NORMAN, *Fish Biologist*
and
RAYMOND V. CORNING
Fish Management Field Coordinator

HAVE you ever wondered how many pounds of fish anglers catch in a certain body of water over a period of time? Or what the average catch rate is per hour of fishing time? If you have gone fishing on some of the lakes in the Tidewater area recently, you are probably aware that a survey is being conducted to answer these important management-research questions as well as many others.

Since April, 1970, the Commission of Game and Inland Fisheries has been involved in a creel survey of lakes Kilby, Meade and Cohoon of the Portsmouth Water Department, Prince and Smith-Whitehurst of the Norfolk Water Department, Lee Hall and Harwood's Mill of the Newport News Department of Parks and Recreation, and Lake Powell in James City County. This survey, sponsored in part by a Federal Aid Grant made possible by the Dingell-Johnson Sport Fish Restoration Act (DJ-F24, Virginia), is being carried out in conjunction with the various agencies in charge of the lakes.

Reasons for the creel survey are manifold, but generally it can be stated that it is an outgrowth of an awareness that water supply reservoirs are vital to

freshwater fishermen of eastern Virginia. Eastern Virginia was never blessed with an abundance of natural fresh, non-tidal waters and nearly all such waters other than Lake Drummond have been man made. Three major needs have brought about the impoundment of regional waters: (1) an early need for power to run grist mills, (2) the need for ponds as a source of ice to be cut, stored and subsequently used in warmer months, and (3) water supply needs. Abundant electricity and the ready availability of refrigerated units have replaced needs for the first two activities, leaving only water supply impoundments as a new major source of fishing waters.

Although not directly in linear proportion to the buildup of population along the coast, water supply reservoirs have been and are still being constructed due to constantly increasing water supply demands. Water supply reservoirs are now highly important as a means for providing sport fishing recreation to nearby urban concentrations of fishermen. This means as the population continues to increase faster than the creation of new fishing waters, the importance of water supply impoundments will also grow as a source of fishing recreation.

By conducting a creel survey of the type reported here, knowledge of the number, size and kind of fishes caught can be determined. Supplementary information is also being collected along with the survey and this information will show what types of physical, chemical and biological conditions have produced the reported quantities of fishes. Proper interpretation of this data

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A colored card indicating number in fishing party, along with identification from one member of the group, is placed upon board at checking station until party returns for creel survey.

Photos by M. Norman



will not only allow biologists to maintain fishing success, it will lead to modification of existing environments or to the stocking of species best suited for existing conditions. A detailed knowledge of why certain fishes are found in specific waters and not in others will also aid in the future construction and location of new, combination water supply-fishing water impoundments.

One factor troubling a number of biologists should be satisfactorily answered by the end of this study. Growing seasons for fish, like crops, vary from year to year. Just how substantial this effect is in determining total harvests of sport fishes on an annual basis is relatively unknown. However, because a number of lakes are being surveyed close together in the Tidewater region, many factors normally influencing fish production are eliminated, such as the effects of latitude, longitude and elevation. This makes the impact of growing season on fish harvests much easier to detect and adequately measure.

Reduced catches of fish are often the first indication to fisheries biologists of the need for more intensive fisheries management. Catch statistics allow biologists to follow catch values so that if fishing success decreases, corrective management procedures can be initiated before fishing becomes unacceptable. A knowledge of previous and current annual harvests, including rec-

ords of fishing effort and angling success, are needed to predict future production. They also help the biologist to evaluate the effectiveness of his efforts to improve fishing through stocking or other management procedures. Data from this survey, besides providing a feedback to the managing biologist, will also be used to appraise introductions of exotic fishes (those not native to this area). For example, striped bass, northern pike and muskellunge have been introduced into some of the lakes under study. Perhaps most important from the standpoint of fisheries research, information from this survey will be used to relate productivity of each lake to lake ecology. Information such as water chemistry analysis information; meteorological data; information on terrestrial and aquatic vegetation; morphological information about the lake basins; soil types; and ratios of forage fishes to carnivorous fishes will all be evaluated as to their effect on the fish population of each lake and on the individual productivities. Conclusions concerning interrelationships of these parameters can be modified or exploited in existing or future waters of Virginia to increase sport fish harvests.

An obvious by-product of the survey will be a growing awareness on the part of fishermen regarding the value of water supply impoundments as fishing waters, and a growing awareness by administrators of the increased value of water supply impoundments when managed as multi-purpose waters.

The actual collection of creel data at the lakes is by personnel of the various water departments. Using specially prepared mark-sense IBM cards and/or "porta-punch" cards, the creel clerks record information as to date, fishing type, residence of fishermen, number of fishermen in the party, party hours fished, and number and weight of each kind of fish caught. Cards are then processed by a computer.

The proportion of fishermen sampled varies from lake to lake depending on other duties and responsibilities of the creel clerks. As an example, at lakes

(Continued on bottom of p. 19)



J. D. Johnson at the Lake Prince checking station washes up after weighing, measuring and counting fisherman's catch.

Humorous Patterns of Behavior of Birds and People

By KATHERINE W. MOSELEY
Rixeyville

THE Commonwealth of Virginia, made up of friendly gentlefolk, perhaps excels every state in the nation in hospitality. Visitors throng our highways, our scenic historyland, and our homes. Just so, do the birds wing continually overhead and to our trees.

We live near Culpeper on what must be a "migratory flyway" between the Alleghenies and the Atlantic coastline. Our many human guests follow the same seasonal route as do the birds from north to south and back again, with an occasional errant migrant from the west. Unerringly they find our acres above the Hazel River. We have learned that people and birds have more in common than their patterns of travel. I explain, with tongue in cheek.

The Brown Thrashers arrive for Garden Week in Virginia. They use our home only as a base from which to take off and return. They love every park and shrine in the state. They are awed that they are where history was made. They leave each day to visit the gardens from Mount Vernon to Monticello. Jamestown, Williamsburg, Fredericksburg and Orange are included. Some years they go to the various battlefields. They

sigh with pleasure, "Such beautiful trees and heavenly flowers, azaleas, dogwood, redbud, apple blossoms and mountain laurel. If your winters were milder, we would never leave as we call this our second home." "Come next spring," we urge. "Oh, we shall." And they will.

A loveable older friend is a little House Wren. She arrives bubbling with chatter as she inspects the house.

She suggests a rearrangement of the living room and moves a vase of flowers from table to chest. She asks if she may have the bed in her room pushed to the other wall. She prefers a wool blanket to the electric one. Finally, when we think she is unpacking, we hear something heavy being shoved and realize it is the bureau in her room. She then happily joins us to visit, having re-made her little nest. House wrens are famous for their cheerful ways and their choosy, energetic nest-building talents.



Photo by Graham Moseley

Company's coming!

We look forward to the Robin family's visit. They are outstanding young parents with delightful twin sons. They respectfully and graciously accept their territorial rights to the upstairs and are pleased that

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Creel Survey

Prince, Smith-Whitehurst, Lee Hall and Harwood's Mill, every fishing party is surveyed on weekdays. Every fourth party is interviewed on weekends and holidays. Mrs. S. M. Adsit, the concessionaire at Lake Powell, interviews 100% of the fishermen, thus making the Lake Powell study a complete census rather than a partial survey.

Some of the fishermen visiting Norfolk and Portsmouth Water Supply lakes purchase an annual fishing permit. Annual permit holders are not required to check in at the lake station, unlike fishermen who purchase a daily permit. For these lakes, the 1970 survey only includes fishing parties consisting solely of daily permit holders. The annual permit fishermen and the daily

permit fishermen in a party with an annual permit holder were not surveyed in 1970. However, information regarding annual permit holder fishing success and visitations is presently being collected. Major findings resulting from the survey will be outlined in future issues of the *Virginia Wildlife* magazine. The Commission of Game & Inland Fisheries would like to take this opportunity to express appreciation to Mrs. S. M. Adsit, concessionaire at Lake Powell, and the various personnel, whose names are too numerous to mention, of the Newport News Department of Parks and Recreation, Portsmouth Water Department and Norfolk Water Department for their cooperation and assistance in this study. Without their help this study would not be possible.

our lives are ordered to a daily pattern. They do not want to be entertained but are contented with the companionship of each other and with us. They go to bed early and arise at dawn. We hear their happy chirruping to each other as they greet the day and know they are waiting to come downstairs as soon as they hear the "blurp" of the percolator. The last we hear of them at night is their low, sweet song to the boys as they all gently settle for the night.

The Cowbirds are always unexpected. They dare not write that they are on the way as we may find it more convenient to be away. They are self-centered free-loaders. We are always surprised at how respectable they look in their sleek, conservative dark suits. There are only the two of them as the children are left with neighbors. They are insatiable eaters, heavy drinkers, late to bed and late to rise. They stay preened and glossy, eager for company, ready for a party. We try to please but invariably they manage to imply that they are used to a better quality of hospitality.

Blue Jays are not migrants but one of our friends has blue jay characteristics. Jaunty and arrogant, he roars in annually in his high-powered car. He is bold, brash, and handsome. He is a string-puller and a polite blackmailer, using political influence in his native state to his advantage. Washington, D.C., is his target. In his car sixty-five miles are nothing. There is no telephone number he won't call to wangle an invitation, which he invariably gets. At first he insisted that we be included in his social gadding, but we refused and left him to maneuver on his own the private clubs, the embassy parties, and the lunches and dinners with people of political importance. He both excites and embarrasses us with his overpowering personality. We find we prefer the rowdy, country blue jay who is contented in our pine tree.

The Catbird sisters, retired school teachers, move in quietly wearing lovely, just-alike, conservative gray dresses. They appreciate being in a real home with hearty meals that are prepared with appetite appeal. Their only desire for entertainment is a sightseeing tour of Washington, D.C. This is to confirm their conviction that the Capitol is a beautiful but hellish Gomorrah. We make several trips. The traffic caused them to fear for their lives, not their morals. As their visit came to an end they were satisfied there were administrative errors, political treachery, lack of competence and general debauchery. We sent them to their small mid-western town happy. There they would make speeches at numerous women's clubs about their trip and give sophisticated judgment on the affairs of the government.

The Wood Pewees are our young college couple. We are friends of both of their parents. They unloaded craft paraphernalia, health foods, and a yogurt-maker. We soon learned they had confidence only in ones of

their generation and their generation must solve every problem from ecological to theological. Restlessly, they turned from one activity to another. They wandered the woods for edible weeds and roots. They composed verse. One they let us read was an ode to "Milly in a Cemetery Urn." They built junk sculpture. They meditated. Always they were clean and amiable though they refused our offer to ask other young folks out. We decided that, like the bird, wood pewee, they were shy. We also thought we heard through their monotonous, constant philosophy the tender pathos of a pleading call to be understood. The generation gap was there, but it was not a chasm.

We love our Flicker friends, as wholesome as cornbread. Their visits are a joy. They are so sensible, down-to-earth and helpful they leave us refreshed in body and spirit. Their sense of humor is contagious and soon all four of us are chortling their delightful, "Yar-rup," or "Wickie, wickie, wee."

Our most exquisite guests are the Hummingbirds. They are gracefully beautiful but wear us out with their frenetic energy. They seem like quick-silver, ever on the move. We share one common weakness: our feet and theirs tire quickly. They perch somewhere before darting from room to room while we sink into chairs to rest. They eat snacks all day long and at meals they act like starvelings and gain not an ounce. We eat like birds and gain pounds.

Our favorite guests, human or feathered, are Bluebirds. Both kinds spend time with us, and both kinds have gentle manners and angelic dispositions. They ask only for friendship which is given without measure. They repay with subdued but rapturous melody and quiet, unpublicized deeds of kindness. "Bluebirds for Happiness" is certainly true in our lives.

There are others, the Civil War buff with his beeping metal-detector searching for artifacts that reminds us of the probing beak of a Woodpecker. One searches for food under the bark of a tree and the other for the sound of a buried Civil War rifle.

There was the genealogist we likened to a vigorous tail-wagging Phoebe as she scanned volumes in libraries from Richmond to Culpeper. We explored old cemeteries and carefully hunted family names. Phoebe enjoys their name and constantly repeat it. So do fanatics in the science of family history. The published mention of a cousin several times removed may be just the missing link long sought in a family line. It was fun going with her.

All over the world there are people who delight in the study of ornithology. Invariably there is a sense of wonder in the bewildering similarity in the patterns of behavior of birds and people. If the old adage "Birds of a feather flock together" is true, then we are a strange breed. However, living on a migratory flyway leaves no time for monotony, and we welcome every guest, two-legged or feathered.

REDBUD

By ELIZABETH MURRAY
Charlottesville

Illustrated by Lucile Walton

THREE main colors which were not present in winter appear in our woods in mid-spring, white, pink and a pale lime-green. The white comes first from the shadbush and then from the flowering dogwood, the green is produced by the first tender little leaves of the willows, and the pink is the redbud.

Cercis canadensis, our redbud, is mainly native to the Southeast, despite its scientific name, although it does have a sporadic distribution farther north and is cultivated as an ornamental in many places. It is a large shrub or small tree belonging to the extensive pea family or Leguminosae. Within this family it is classified into a smaller group which also contains the Kentucky Coffee Tree, the Honey Locust, the Partridge Pea and Senna.

Most of the Leguminosae, including redbud, have what are known as *papilionaceous* flowers in which the 5-partite corolla is arranged into a *standard*, or large posterior petal, and two lateral *wings* overhanging a central *keel* composed of the last two petals, united. Actually in *Cercis* the standard is smaller than the wings and enclosed by them in the bud, and the keel petals are larger and not united, but the general form is still that found in nearly all members of the pea family. There are ten curved stamens. The fruit is a *legume*, that is, a bilaterally symmetrical pod produced from a one-chambered ovary and usually containing several seeds of the pea and bean variety.

Redbud flowers bloom before the leaves appear, forming dense reddish-purple clusters along the branches of the last and preceding years. The flower stalks are extremely brittle, as anyone who has ever tried to bring boughs into the house knows to their cost. They look marvelous for one minute, then shed a layer of pink confetti all over your carpet! It is easier to enjoy them as they grow out in the wild.

In contrast to the compound leaves of many leguminous plants, the leaves of *Cercis* are simple and almost perfectly heart-shaped, smooth and glossy above, paler and sometimes slightly downy beneath. They appear around May as the last flowers are dropping off.

The other common name for *Cercis* is the Judas tree, so-called because, according to legend, it was from this tree that Judas Iscariot committed suicide. There is at least one early woodcut which shows him hanging from a *Cercis* tree. The European species is *Cercis*

siliquastrum, found throughout southern Europe and Asia Minor. It is a tree similar to our *C. canadensis* with purplish-pink flowers appearing first in spring, and smooth shining leaves coming out later. However, in the European species the leaves are much rounder, not pointed at all, and the tree itself is generally larger than the New World one, sometimes attaining a height of 40-50 feet.

In both species the flowers have an agreeable acid taste and can be eaten mixed with salad or made into fritters. They are also used in making pickles. An extract from the branches can be made to dye wool a yellowish-buff color. Otherwise the wood, although quite close-grained and an attractive ruddy color, has no particular commercial value.

The name *Cercis* comes from a Greek word for shuttlecock. It was given to the plant by Theophrastus, a Greek philosopher and pupil of Plato and Aristotle,



Redbud, *Cercis canadensis*.

who was responsible for a great deal of plant naming around 300 B.C. *Siliquastrum* means 'cylinder-podded.' The specific name *canadensis* is a bit of a misnomer since, except for southern Ontario, redbud is not frequently found in Canada. It could have been more aptly named after our state, since in Virginia it is a common sight along fence-rows and in woodland areas, particularly where the soil is basic, blooming in profusion from late March to May.



Edited by HARRY GILLAM

Trophy Heads for Wildlife Class



Burd S. McGinnes, left, unit leader of the Virginia Cooperative Wildlife Research Unit, and Henry S. Mosby, professor of forestry and wildlife, both of Virginia Tech, admire two bighorn sheep trophies. The mounted head on the left is a Dall's sheep, and the white one on the right is a Stone sheep. They are part of a collection of 11 big-game species donated to the University by Dr. K. C. Randall, Washington, D. C., physician, which will be used in classroom teaching in wildlife at Tech.

Shrubs for Wildlife Food

The Virginia Division of Forestry now has three species of wildlife food shrubs that may be purchased for planting. These include autumn olive, bicolor lespedeza, and bristly locust.

Autumn olive is a medium-sized shrub eventually reaching six to eight feet high and producing red berries. It is relished by deer, turkeys, grouse and many other birds and animals. Bicolor lespedeza is a tall slender perennial shrub reaching about six feet and producing abundant small black seed. Deer and rabbits browse on the plants, and quail like the dense thickets the bicolor forms. Bristly locust is a low-growing shrub, making thickets for cover and producing pods of seeds attractive to game. It is an excellent soil stabilizer in disturbed areas.

These plants may be ordered at \$2.50 per hundred through all Division of Forestry offices. Order forms are also available from Box 3758, Charlottesville.

Wildlife Aid Gets Federal Axe

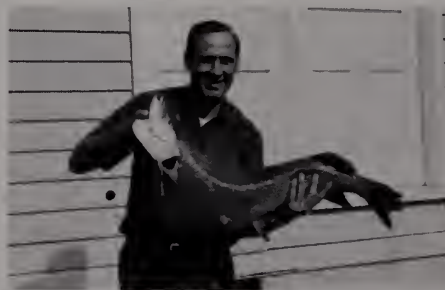
Wildlife programs were among the first casualties of the recent federal crackdown on spending, according to the Wildlife Management Institute. Both the Water Bank program, which paid farmers for preserving wetlands,

and the Rural Environmental Assistance Program, which paid farmers for wildlife habitat improvement and erosion control, were scrubbed. Some drainage assistance was also cancelled, but it is feared that other federal drainage programs will continue with funds from various agency budgets. Although wildlife payments were small and not often claimed by farmers, they at least offered an alternative to the often lucrative exploitation of valuable habitat.

Teachers: Have You Applied . . .

. . . yet for enrollment in the 2-1/2 week natural resource course offered either at VPI & SU (June 18-July 6, 1973); Madison College (July 5-July 25); Virginia State College (July 11-July 31); or The College of William and Mary (July 23-August 10)? Subjects taught include Geology, Marine Life, Soil and Water, Forests, and Wildlife. Full scholarships available; 3 semester hours credit. Apply by writing to the Virginia Resource-Use Education Council, c/o Mr. E. W. Mundie, Seitz Hall, VPI & SU, Blacksburg, Virginia 24061. Be sure to indicate the college of your choice.

Record Northern Pike



Bobbie Church of Arlington caught this 17 pound 3 ounce Northern from the waters of Occoquan Reservoir in mid-September setting a new state record. A number of the big pike approaching this size were taken last fall.

Indoor Duck Shoot

The Richmond Chapter of Ducks Unlimited will hold a benefit "Indoor Duck Shoot" March 28 at 7 p.m. in the Hotel Jefferson Ballroom. Admission is \$10 per person and proceeds

will go toward completing "Lake Harrison," a black duck nesting project in Canada. Attendees will enjoy refreshments, movies, exhibits and drawings.

Commissioner and Family Know How It's Done



Game Commissioner Ralph Weaver, left, of Waynesboro and family pose with deer bagged during the first three days of the season. Weaver's daughter, Janna, and son, Darrell, were the other family members in addition to himself that bagged deer during the hunt at their Sleepy Hollow Camp in Bath County. His wife shared in the killing of Darrell's deer but didn't fill her own bag during the first week. Janna and Darrell each added a turkey to their game bag later in the season.

Squirrel Hunting Guide

Virginia's number one game animal, the squirrel, is featured in a new book, *Squirrels and Squirrel Hunting*, appropriately written by a Virginia author, Bob Gooch. The book, however, is not limited to Virginia but surveys squirrel species and hunting tactics across the nation. In spite of the squirrel's rating as the second most-sought-after game animal in the U.S., the squirrel is feeling the squeeze of widespread habitat manipulation. The author states that extensive lumbering operations have eliminated much of the squirrel's habitat, destroying den trees and food-producing hardwoods. He calls for more concern for the species by timber interests. The book covers habits of and hunting methods for fox, Albert, western gray, and Arizona gray squirrels in addition to our common eastern gray. Hunting weapons, dogs, calls and tactics are all discussed. Even cleaning and cooking tips are included. The well-illustrated, 148-page volume is published by Tidewater Publishers of Cambridge, Maryland, @ \$6.00.



Edited by ANN PILCHER

Hunted in Highland



Having the head of his first deer kill mounted was a special Christmas present for 8-year-old Ronald Clevinger Jr., of Maxie, Virginia. Ron bagged the nice doe December 2 on National Forest land in Highland County at Headwaters, Virginia, during his first deer hunt.



Audio-visuals were employed by this Maryland team of fly casting instructors. Art work showing types of flies and fly rod action was effectively displayed on a three-legged easel. Lessons in how to tie knots and make leaders for terminal gear were also a part of the presentation.



Memorial Fishing Clinic

The Brotherhood of the Jungle Cock (whose emblem shows the feather of a jungle fowl used in making fishing flies) was founded in 1938 in Maryland by Joe Brooks. Last fall Mr. Brooks, world-renowned angler, master trout fisherman, and long-time Richmonder, died. And in January the year-old Virginia Anglers Chapter of the Brotherhood sponsored the First Annual Joe Brooks Memorial Casting Clinic, held in the gymnasium of Henrico County's Tucker High School. Bringing a boy was an admission requirement for every adult attending the five-hour session of fly casting, plug casting and spinning lectures, demonstrations and practice sessions. Refreshments, of course, were an important part of the day.



Nat T. R. Burgwyn, president, Virginia Anglers Chapter, The Brotherhood of the Jungle Cock, presents a Joe Brooks' complete book on fly fishing to young door-prize winner Christopher Marks. Other prizes were tackle boxes and miscellaneous tackle.



Richmonder Don Lambert, shown here with a young clinic participant, taught spinning and plug casting.

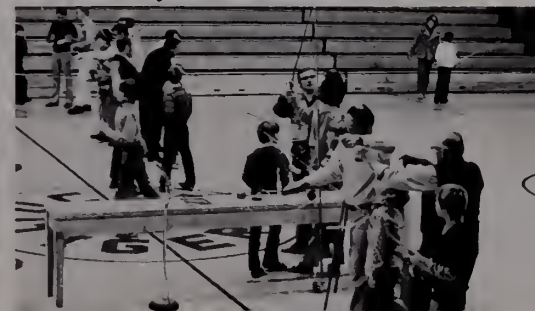
Max Ailor, Richmond Times Dispatch outdoor editor (at left), prepares for a camera shot as John M. Bunch of Richmond welcomes clinic participants. Jungle Cock emblem sits on easel behind Mr. Ailor; Game Commission fish research panel display is seen to his left, Power Squadron banner to the right.

Game Commission photos by Leon G. Kesteloo

Practicing with a fly rod.



Individual tutoring in fly casting by the Maryland instructors.



ON THE WATERFRONT

Edited by JIM KERRICK



Photo courtesy Kiekhaefer Corp.

Use of a small boat and small motor makes it much easier to get into right places where the "big ones" are.

Why Do People Buy Outboards? To Fish

Why do people buy outboard motors? According to the latest survey, the overwhelming majority of people buying outboards use them for fishing. A survey showed that 87 percent of all boatmen will go fishing at least some of the time with their motor.

In contrast to the high percentage of those who wish to fish, those who hunt most of the time constitute only 2%, those who buy motors for pleasure boating add up to 27%, and only 20% of all boatmen use the motor for water skiing.

Cruising, either close to home or long distance junkets, will probably draw more people in the future. With the continuing improvement of our waterways and waterfront facilities, it is almost a certainty that this boating activity will increase in popularity in the near future.

Family camping has also given cruising a boost. Boat-camping can be a real budget-minded family vacation. In addition, water skiing's increase in popu-

larity will also help pleasure boating. More than nine million people hollered "hit it" last summer.

Of the 87% who fish some of the time, 57 percent pointed out that they will fish the great majority of the time with their motor. The remaining thirty percent said they would fish only part of the time.

It is true, however, that as the horsepower rises, the percentage of those who use it for fishing decreases. Of those motors whose horsepower is 9½ or less, 80% of their owners use them mostly for fishing. On the other hand, motors whose horsepower is 75 or over are used by 31% for fishing.



Photo courtesy Kiekhaefer Corp.

It's a proud father who can land fish like these under the critical gaze of his offspring. And it's a wise father who makes certain that tots like this pair and all non-swimmers in the boat wear approved life jackets at all times.

For Safer Boating—Make Swimming a First

Of the millions of people who go afloat each year, only those who have the confidence and personal lifesaving talent which the ability to swim well provides can enjoy boating the most and without care and concern.

Be certain you are ready for boating before going aboard.

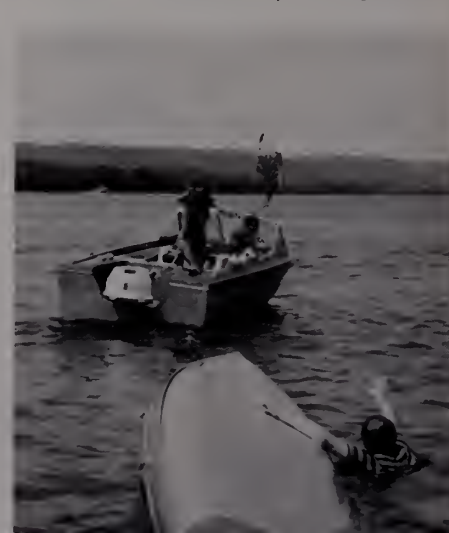
1. Know how to swim, so you'll not be a "sure goner" if you fall overboard.
2. Learn how to survive when you unexpectedly find yourself "in the drink."
3. Acquire basic personal lifesaving skills so you not only can save yourself, but also be of assistance to your friends who might suffer the same misfortune.
4. Learn to "stay with the boat" in the case of capsizings and swampings.
5. Make your clothing serve as survival gear by knowing how to use it for emergency flotation.

If you are not now prepared by being a good swimmer, take the necessary steps to qualify as a good swimmer by taking advantage of the instructional opportunities afforded by organizations such as the YMCA's, American Red Cross, Scout Camps and other facilities spread across the nation.

There is no need to become a boating fatality "statistic."

If your boat capsizes, **STICK WITH IT.** That shoreline may be farther than you think. When assisting a capsized boatman, steer clear and heave a floatable object with line attached to the victim. Remember, most boats today will keep you afloat even in the most severe weather conditions.

Photo courtesy Manning Associates



1973 TROUT STOCKING PLAN

Legend: * — National Forest Waters R — Rainbow Trout
B — Brook Trout BR — Brown Trout

	Period Stocked		
	Preseason	May	June-Jan.
ALBEMARLE CO.			
City Water Works	R	R	
Moarmans R., North & South Fork	R	R	R, BR
ALLEGHANY CO.			
Jackson River	R, BR	R, BR	R, BR
Smith Creek*	B, R	R	
Simpson Creek*	B, R	B	
Pounding Mill Run*	B, R	R	
Jerry's Run*	B		
Clifton Forge Reservoir*	R	R	
AMHERST CO.			
Pedlar River (upper)	B, R	B, R	R, BR
Pedlar River (lower)	B, R	B, R	R, BR
Brawn Mt. Run*	B	B, R	
Davis Mill Creek*	B	R	
Enchanted Creek*	B, R	B, R	
Little Irish Creek*	B, R	B, R	
Pedlar River*	R	R	B, R
Racky Raw Run*	B	R	
Statans Creek*	B	B	
AUGUSTA CO.			
Back Creek	B, R	B, R	R, BR
North River*	B, R	R	R
Buffala Branch*	B, R		
Ramsey's Draft*	B, R	B, R	
Braley Pond*	B, R	B, R, BR	B
Back Creek*	B, R	B, R	
Jahn's Run*	B		
Kennedy Creek*	B		
Upper Sherando Lake*	R	R	
Lower Sherando Lake*	R	B, R	B
Heartstone Lake*	R	B, R	B, R
Puffenbarger Pond*	R		
Elkhorn Lake*	R	R	B, R
Little River*	R	R	
Rawland Pond*	B, R	B, R	
Cold Spring Pond*	B, R	B, R	
BATH CO.			
Bullpasture River	R, BR	B, R, BR	R, BR
Jackson River (Na. 623)	R	B, R	R, BR
Jackson River (Gathright)	B, R	B, R, BR	R, BR
Back Creek	B, R	B, R	
Spring Run	B, R, BR	B, R, BR	R, BR
Back Creek*	R	R	B, R
Wilson Creek*	B	B, R	
Mares Run*	B	B	
S. Fk. Pads Creek*	R	R	
Muddy Run*	B	B	
Jackson River (Hidden Valley)*	B, R	R	B, R
Piney River*	B		
BEDFORD CO.			
Hunting Creek*	R	R	R
Battery Creek*	R	R	
BLAND CO.			
Hunting Camp Creek	B, R	B, R	R
Laurel Creek	B, R		
Na Business Creek	B, R	B, R	R, BR
Lick Creek	B, R	B, R	R
Spur Branch	B, R		
Kimberly Creek*	R	R	
White Sulphur Sps.*	R	R	
Lick Creek*	R	R	R
BOTETOURT CO.			
Jennings Creek	B, R, BR	R	R, BR
Mill Creek	R	R	R, BR
Roaring Run	R	R	R, BR
North Creek*	R	R	R
Middle Creek*	R	R	R
McFalls Creek*	R	R	R
BUCHANAN CO.			
Slate Creek	B, R	B, R	
Hurricane Fork	B, R	B, R	
Grassy Creek	B, R	B, R	
CARROLL CO.			
Stuart's Creek	B, R	B, R	
Big Reed Island Creek	B, R, BR	B, R, BR	R, BR
Little Reed Island Creek	B, R, BR	B, R, BR	R, BR
Crooked Creek	B, R, BR	R, B	
Burkes Fork	B, R	B, R	
Paul's Creek	B, R	B, R	
Laurel Fork	B, R	B, R	
CRAIG CO.			
Patts Creek	B, R	B, R, BR	R, BR
Sinking Creek	B, R	B, R, BR	R, BR
Barbaurs Creek*	R	R	R
North Fork Barbaurs Creek*	R	R	
South Fork Barbaurs Creek*	R	R	
Cave Creek*	B	R	
Lipes Creek*	B		
Patts Creek*	R	R	
DICKENSON CO.			
Frying Pan Creek	B, R	B, R	
Russell Fork River	B, R, BR	B, R, BR	
Paund River	R	R	R, BR
FLOYD CO.			
Beaver Creek	B, R	B, R	
Burkes Fork	B, R	B, R	R
Howell Creek	B, R	B, R	R, BR
Rush Fork	B, R		
West Fork Little River	B, R	B, R, BR	R, BR
Meadaw Creek	B, R		
Laurel Fork	B, R		
Mira Fork	B, R		
Little River	R, BR	R, BR	R, BR
Gaase Creek	R	R	
FRANKLIN CO.			
Green Creek	B, R	B, R	
Maggadee Creek	B, R	B, R	R, BR
Runnett Bag Creek	B, R	B, R	
FREDERICK CO.			
Back Creek (upper)	B, R	B, R	
Back Creek (lower)	B, R	B, R	
Hague Creek	B, R	B, R	R
Cedar Creek	B, R, BR	R, BR	R, BR
Paddy Run (Farrest line to Na. 600)	B, R	B, R	
Paddy Run*	R	R	R
GILES CO.			
Big Stony Creek	B, R, BR	B, R, BR	R, BR
Dismal Creek*	R	R	R
GRAYSON CO.			
Big Wilson Creek	B, R	B, R	R, BR
Middle Fork Heltan Creek	B	B	R
Big Fax (lower)	B, R, BR		
Big Fax (upper)	B, R	B, R	R
Middle Fax Creek	B, R	B, R	R, BR
Elk Creek	B, R, BR	B, R	R, BR
Peach Bottom Creek	R	B, R	R, BR
Helton Creek	R	B, R	R, BR
Turkey Knab Fork Creek	B, R	B	
Hale Lake*	R	R	R
GREENE CO.			
Ivy Branch	B, R	B, R	
South River	B, R	B, R	
Swift Run	B, R	B, R	R, BR
HENRY CO.			
Smith River	B, R, BR	R, BR	R, BR
HIGHLAND CO.			
Bullpasture River	B, R, BR	B, R, BR	R, BR
Crab Run	B, R	B, R	R
S. F. Patamac River	B, R	B, R	
Laurel Fork	B, R	B, R	
Jackson River	B, R, BR	B, R, BR	R, BR
Back Creek	B, R	B, R	
Laurel Run*		B	B

(Continued on page 26)

	Period Stocked				Period Stocked		
	Preseason	May	June-Jan.		Preseason	May	June-Jan.
LEE CO.				Devil's Fork*	R	R	
Hardy's Creek	R	R	R, BR	Stony Creek*	R	R	R
Dry Creek	B, R	R	R, BR	Stroight Fork*	R	R	R
Martin's Creek	B, R	B, R		Little Stony Creek*	R	R	R
North Fork Powell River	B, R	B, R	R	Cove Creek*	R		
MADISON CO.				Mountain Fork*	R	R	
Garth Run	B, R	B, R	R, BR	SHENANDOAH CO.			
Hughes River	B, R	B, R	R, BR	Passage Creek	B, R, BR	B, R, BR	R, BR
Robinson River	B, R	B, R		Big Stony Creek (lower)	B, R, BR	B, R, BR	R, BR
Rose River	B, R	B, R		Big Stony Creek (Boyse)	B, R	B, R	
MONTGOMERY CO.				Cedor Creek	B, R, BR	B, R, BR	R, BR
Tom's Creek	B, R	B, R		Mill Creek	B, R	B, R	
S. Fork Roonoke River & Bottom C.	B, R, BR	B, R, BR	R, BR	Little Stony (above Woodstock Reservoir)*	B, R	B, R, BR	
Poverty Creek*	R	R		Little Stony (below Woodstock Reservoir)*	R	R	
Craig Creek*	R	R		Poddy Run*	B, R	R, BR	
NELSON CO.				Cedor Creek*	B	R, BR	
Tye River	B, R, BR	B, R, BR	R, BR	Mountain Run*	R	R	
North Fork Tye River	B, R	B, R	R, BR	Little Passage Creek*	B	R	
Stony Creek	B, R	B, R	R	Peters Mill Creek*	B, R	B, R	
Rockfish River	B, R	B, R		Tomohawk Pond*	B, R	R, BR	R
PAGE CO.				Upper Passage Creek*	B, R	B, R, BR	
East Fork Hawksbill Creek	B, R	B, R	B, BR	SMYTH CO.			
Hawksbill Creek	B, R	B, R		Lick Creek (upper)	B, R	R	R, BR
Cub Run*	B, R	B, R	R	Lick Creek (lower)	B, R	B, R	R
Pitt Spring Run*	B, R	B, R	B, R	S. Fork Holston River (gorge)	B, R, BR	R, BR	R, BR
Upper Passage Creek*	B, R	B, R, BR		S. Fork Holston River (lower)	B, R, BR	B, R, BR	R, BR
PATRICK CO.				Big Laurel Creek	B, R	B, R	R
Don River (below powerhouse)	B, R	B, R, BR	R, BR	Staley's Creek	B, R	B, R	R
Don River (above powerhouse)	B, R	B, R		Middle Fork Holston River	R	R	R
Rock Castle Creek	B, R	B, R		Cregger Creek*	R		
Round Meadow Creek	B, R	B, R		Comers Creek*	R	R	R
North Fork Mayo Creek	B, R	B, R		Hurricane Creek*	R	R	
South Fork Moyo Creek	B, R	B, R		Houndshell Creek*	R	R	
Poorhouse Creek	B, R			Dickey's Creek*	R	R	R
Big Ivy Creek	B, R	B, R		Little Laurel Creek*		R	
Ararat River	B, R			Raccoon Branch*	R		
PULASKI CO.				Center Creek*	R		
West Fork Peak Creek	B, R	R		Roland Creek*	R	R	
RAPPAHANNOCK CO.				TAZEWELL CO.			
Piney Branch	B, R	B, R		Wolf Creek	R, BR	R, BR	R
ROANOKE CO.				Cove Creek	B, R	B, R	R, BR
Roonoke River	B, R, BR	B, R, BR	R, BR	Laurel Creek	B, R	B, R	
Tinker Creek	B, R	B, R		Roaring Fork	B, R	B, R	R
Glode Creek	B, R, BR	B, R		Little Tumbling Creek	B, R	B, R	R
ROCKBRIDGE CO.				Punch & Judy Creek*	R		
Mill Creek	B, R	B, R	R, BR	WARREN CO.			
Irish Creek	B, R	B, R	R, BR	Gooney Run	B, R	B, R	
South River	B, R	B, R, BR	R, BR	WASHINGTON CO.			
Hoyse Creek	B, R	B, R	R, BR	Whitetop Laurel	B, R, BR	B, R, BR	R, BR
Elk Creek*	R	R		Tennessee Laurel	B, R	B, R	R
ROCKINGHAM CO.				Green Cove Creek	B, R	B, R	R
North Fork Shenandoah River	B, R, BR	B, R, BR	R, BR	Big Brumley Creek	B, R	B, R	R
German River	B, R	B, R		Big Tumbling Creek	B, R	B, R	R
Dry River	B, R	B, R		Valley Creek	B, R	B, R	R
Briery Branch	B, R	B, R		Stroight Branch*	R	R	R
Silver Lake	R	R	R, BR	WISE CO.			
Lake Shenandoah	R			M. Fork Powell River	B, R	B, R	
Boones Run*	B, R	R	R	Burns Creek*	R		
Shoemaker River*	B, R			Clear Creek*	R	R	
Blacks Run*	B, R	B, R	B	High Knob Lake*	R	R	R
Gum Run*	B, R	B, R		WYTHE CO.			
Skidmore Fork*	B, R	B, R		E. Fork Stony Creek	R	R	
Slate Lick Run*	B, R	R		Dry Run	R	R	
Briery Branch*	B, R			East Fork Dry Run*	R	R	
Briery Lake*		BR		West Fork Dry Run*	R	R	
Hone Quarry Run*	B, R	B, R		Gullion Fark*	R		
Hone Quarry Lake*		BR		West Fork Reed Creek*	R	R	
RUSSELL CO.				West Fork Peak Creek*	R	R	
Big Cedor Creek	B, R, BR	B, R, BR	R, BR				
Big Cedor Creek (fish for fun)	R		R				
Laurel Bed Lake (fee fishing)	B						
SCOTT CO.							
Little Stony Creek	B, R	R	R, BR				

**LAKES STOCKED BY THE VIRGINIA COMMISSION OF GAME
AND INLAND FISHERIES**

Corvins Cove	Rainbow	Flonnogan Reservoir	Rainbow
Philpott Reservoir	Rainbow	South Holston Reservoir	Rainbow



*Bird
of
the
Month:*

JWT

The Chipping Sparrow

By JOHN W. TAYLOR
Edgewater, Maryland

THE chipping sparrow likes to live near and with man, but cannot tolerate his cities. On farms and country homes it is a back-yard bird, feeding confidently on the doorstep and nesting in rose arbors and porch-side vines. But it shuns any hint of human congestion, and is rarely found in built-up sections.

Its song, a monotonous metallic trill, is likely to be mistaken for the drone of an insect, unless one knows it or is consciously listening for it. It is usually heard first in mid-April hereabouts, for they are early migrants. As the season progresses, they become more vocal, singing tirelessly the day long on even the hottest summer days. The note is a single *chip*.

The chippy is known among some country folk as the "horse-hair" bird, that being a favored material for nest-lining. At least it was in earlier times when horses were more a part of the scene. They still use it whenever it is available, often traveling some distance to get it.

Human hair is used as well, to some extent. One chipping sparrow's nest that was carefully dissected

contained the following: 752 horse and human hairs, 182 rootlets inside and an outer cup of 145 pieces of grass and weed stems. A total of 1079 pieces were found in the nest.

The three or four delicately-spotted blue-green eggs are incubated for about ten days, and the young are fledged in a week or so, and are on their own in two weeks. Thus there is plenty of time for a second brood.

Identification of the adult plumaged chipping sparrow is fairly easy; look for the rusty-red crown in conjunction with the prominent white stripe over the eye. The tree sparrow, here only in winter, also has the rusty crown, but the eye-stripe is dingy gray. Rusty-crowned, too, is the field sparrow, but it has an eye-ring not a stripe, and a noticeably pink bill.

The Eastern Shore counties lie within the winter range of the chippy, as does the Cape Henry area. Over a hundred individuals have been noted there on several Christmas censuses. A few are usually present, in mild winters, in the piedmont counties, but for the most part they are summer birds in Virginia.

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